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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,912	10/20/2004	Takashi Ihara	1912.71714	4218
24978	7590	04/06/2006	EXAMINER HO, TAN	
GREER, BURNS & CRAIN 300 S WACKER DR 25TH FLOOR CHICAGO, IL 60606			ART UNIT 2821	PAPER NUMBER

DATE MAILED: 04/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/511,912	IHARA ET AL.	
	Examiner Tan Ho	Art Unit 2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 09 January 2006.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-31,48 and 53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 2-28 and 39-42 is/are allowed.
- 6) Claim(s) 1,29-31 and 35-37 is/are rejected.
- 7) Claim(s) 38 and 43-48 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 20 October 2004 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

*Tan Ho*

**TAN HO**  
**PRIMARY EXAMINER**

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/04,01/06.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Objections***

1. Claims 2, 3, and 36 are objected to because of the following informalities: In claim 2, line 7, "said gap" should be changed to –said gap—if it is the gap defined in claim 1; in claim 2, there is no antecedent basis for "said magnetic resistance" and "said sub-magnetic patch" if it is dependent in claim 1? It should be dependent only in claim 3.
2. In claim 36, the recitation "said number of turns" is has no antecedent. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Maruyama et al (US Patent 6,400,330).

Maruyama et al disclose, in figure 2, an antenna structure comprising a metal casing 5, a ferromagnetic core 3; and a coil 13 wound about the core.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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5. Claims 29-31, and 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teodoridis et al (US Patent 4,884,252).

Teodoridis et al disclose, in figure 6, an antenna structure used for a timepiece comprising an inductive antenna element 7 located in a metal case 2 of the timepiece. The patent to Teodoridis et al differs from the claimed invention because it does not disclose the specific inductance value and resistance value of the antenna element. However the inductance and resistance values of the antenna element are considered an obvious of design choice depending upon the desired frequency band of the antenna element.

***Allowable Subject Matter***

6. Claims 38, 43-48 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 2-28, and 39-42 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Claim 2 recites an antenna structure comprising a main magnetic path in which a coil is wound about a magnetic core, a sub-magnetic path in which a coil is not wound about a magnetic core, the magnetic path formed along the magnetic core having a closed loop like configuration, a gap provided in part of the magnetic path, and the gap is configured to have magnetic resistance or magnetic permeability different from that of other parts of the magnetic path.

Claim 39 recites an antenna structure comprising a main magnetic path in which a coil is wound about a magnetic core, a sub-magnetic path in which a coil is not wound about a magnetic core, the magnetic path formed along the magnetic core having a closed loop like configuration, wherein the antenna structure is suitable to be used under circumstances wherein a metal material is present in the vicinity of the antenna structure and a Q value retention ratio Rq.

The patents to Maruyama et al and Teodoridis et al do not teach this antenna structure.

8. The patents to D'Hont, Ross et al, Murukami, Ganter et al, Sonoda et al, and Gabe are cited as of interest showing the antenna similar to that disclosed.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tan Ho whose telephone number is (571) 272-1822. The examiner can normally be reached on M-F (8:00AM - 5:00PM).

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Tan Ho*  
TAN HO  
PRIMARY EXAMINER